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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,885	07/03/2003	Baojia Huang	AWG 001	6866

7590 11/03/2005

EXAMINER	
GIBSON, ERIC M	

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ART UNIT	PAPER NUMBER
3661	

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/613,885	HUANG, BAOJIA	
	Examiner	Art Unit	
	Eric M. Gibson	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5,7,9,11-14 and 18* is/are pending in the application.

4a) Of the above claim(s) ____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,7,9,11-14 and 18* is/are rejected.

7)☒ Claim(s) *1-5, 7, 9, 11-14, and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/11/2005 has been entered.

Attorney or Agent Recommended

An examination of this application reveals that applicant is unfamiliar with patent prosecution procedure. While an inventor may prosecute the application, lack of skill in this field usually acts as a liability in affording the maximum protection for the invention disclosed. Applicant is advised to secure the services of a registered patent attorney or agent to prosecute the application, since the value of a patent is largely dependent upon skilled preparation and prosecution. The Office cannot aid in selecting an attorney or agent.

A listing of registered patent attorneys and agents is available on the USPTO Internet web site http://www.uspto.gov in the Site Index under "Attorney and Agent Roster." Applicants may also obtain a list of registered patent attorneys and agents located in their area by writing to the Mail Stop OED, Director of the U. S. Patent and Trademark Office, PO Box 1450, Alexandria, VA 22313-1450

Claim Objections

Claims 1-5, 7, 9, 11-14, and 18 are objected to because of the following informalities: The claims are replete with errors, including: narrative language (for example, claim 2, which contains a description of the invention, rather than a series of limitations), parenthetical information (for example, claim 2, which contains additional elements or descriptions within parenthesis in the claim that are intended to further limit the claims), grammatical errors, multiple sentences (for example, claim 11 contains three sentences), and general improper format for claims (for example, claim 4 is an improper multiple dependent claim and claim 2 was previously canceled).

The specific claims referenced above are merely exemplary of the errors described. The claims are replete with these errors.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 1-5, 7, 9, 11-14, and 18 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only. Note the format of the claims in the patent(s) cited.

Additionally, note the previous version of claims that were submitted by the Applicant's former representative. It is highly recommended to use the previous version of claims as a template for future submissions.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3, 4, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Hosokawa et al. (US005864391A).

As per claim 1, Hosokawa teaches a vehicle collision avoidance system (figure 18) that includes a circumferentially rotating (column 10, lines 62-63) pulsed infrared laser beam scanner for generating a signal of an obstacle (210, figure 18) by scanning the vertical and horizontal planes simultaneously (see figure 5) and emitting and receiving a reflected portion from the obstacle (column 14, lines 19-22), a processing circuit for processing the signal and generating a plurality of signals (220, figure 18), a processor for processing the plurality of signals and generating a braking signal (200, figure 18), and a braking apparatus responsive to the braking signal (241, figure 18).

As per claims 2- 4, the scanner taught by Hosokawa is "operable to" scan an object from 1.6m to 120m, distances relevant in a collision avoidance system.

As per claim 7, Hosokawa teaches a vehicle collision avoidance method (figure 19) that includes determining features of an obstacle using a circumferentially rotating (column 10, lines 62-63) pulsed infrared laser beam scanner (S20, figure 19),

processing signals representative of the determined features (S70, figure 19), and braking the vehicle if the proceed signals indicate an imminent collision (S100, figure 19).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosokawa in view of Sizer, II (US004737958A).

As per claims 5 and 9, Hosokawa teaches the invention as explained in the rejection of claims 1 and 7. Hosokawa does not specify the exact specifications of the laser used in the invention. The use of laser scanners to detect objects in vehicle collision systems is well known in the art. The specific laser used in any application varies depending on the system's requirements. Furthermore, lasers can be *tuned to achieve desired specifications*, as is well known to one of ordinary skill in the art, including mandated *Federal safety specifications*. One such known laser is the "Nd: YAG" laser, exemplified in the description of Sizer. It would have been obvious to one of ordinary skill in the art, at the time of invention, to include a laser well known in the art and tuned as one of ordinary skill in the art would to achieve desired performance qualities, such as the YAG laser, as exemplified in Sizer.

Claims 11-14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosokawa in view of Maruko et al. (US20020091479A1).

As per claim 11, Hosokawa teaches a vehicle collision avoidance method (figure 19) that includes detecting obstacles using a circumferentially rotating (column 10, lines 62-63) pulsed infrared laser beam scanner (S20, figure 19), determining a relative distance to the obstacle (S30, figure 19), and braking the vehicle if the proceed signals indicate an imminent collision (S100, figure 19). Hosokawa teaches generally applying braking to avoid a collision, but does not teach determining a time to collision and determining the braking force. Maruko teaches a braking control system with object detection system interaction that teaches determining a time to collision (page 6, [0049]) and determining the braking force to avoid a collision with the obstacle (page 8, [0068]). It would have been obvious to one of ordinary skill in the art, at the time of invention, to determine the time to collision and determine the braking force required to avoid a collision with the obstacle in the system of Hosokawa, as taught by Maruko, in order to properly implement the braking contemplated by Hosokawa.

As per claim 12, Maruko teaches determining target acceleration derivative with respect to time (Gx*, page 5, [0039]).

As per claim 13, Maruko teaches a relative distance and a time to collision (page 6, [0049]).

As per claim 14, Maruko teaches determining the obstacle velocity (page 9, [0072]).

As per claim 18, Maruko teaches time to collision determination (page 6, [0049]).

Response to Arguments

Applicant's arguments filed 8/11/2005 have been fully considered but they are not persuasive.

The Examiner has read the Applicant's discussion of the invention and believes that there may be differences between the invention and the cited prior art. However, these differences need to be adequately and properly included into the language of the claims. For this reason, the Examiner has indicated that the Applicant should retain the services of a competent patent attorney or agent. The current submission of claims does not conform with the requirements for patent claims for many different reasons, as discussed above.

Any further analysis of the claims in view of the prior art is not possible at this time due to the severe deficiencies with the format and contents of the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Gibson whose telephone number is (571) 272-6960. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EMG

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